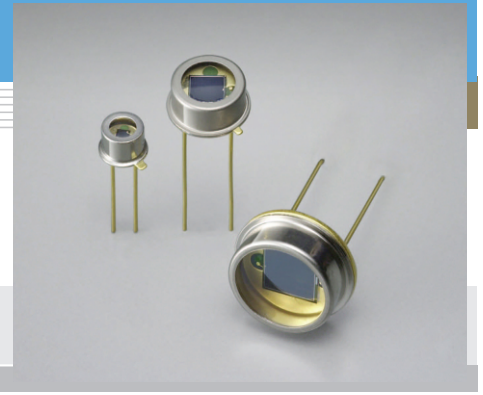


# Si photodiode S1336 series

UV to near IR for precision photometry



## Features

- High sensitivity
- Low capacitance
- High reliability

## Applications

- Analytical instruments
- Optical measurement equipment

### ■ General ratings / Absolute maximum ratings

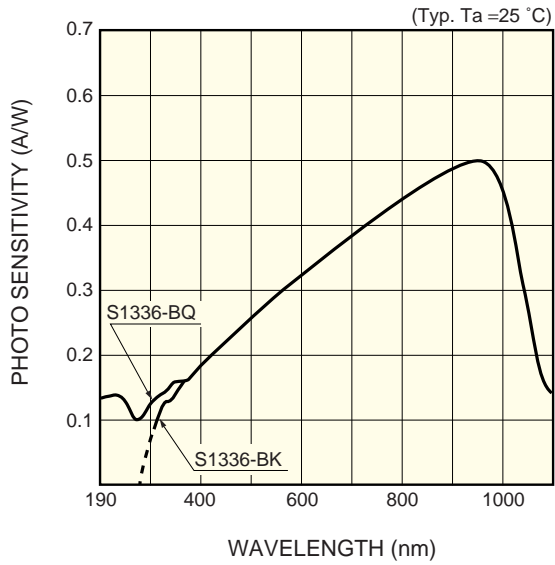
Type No.	Dimensional outline/ Window material *	Package (mm)	Active area size (mm)	Effective active area (mm <sup>2</sup> )	Absolute maximum rating				
					Reverse voltage V <sub>R</sub> Max. (V)	Operating temperature T <sub>opr</sub> (°C)	Storage temperature T <sub>stg</sub> (°C)		
S1336-18BQ	①/Q	TO-18	1.1 × 1.1	1.2	5	-20 to +60	-55 to +80		
S1336-18BK	①/K					-40 to +100	-55 to +125		
S1336-5BQ	②/Q	TO-5	2.4 × 2.4	5.7		-20 to +60	-55 to +80		
S1336-5BK	②/K					-40 to +100	-55 to +125		
S1336-44BQ	②/Q					3.6 × 3.6	13	-20 to +60	-55 to +80
S1336-44BK	②/K							-40 to +100	-55 to +125
S1336-8BQ	③/Q	TO-8	5.8 × 5.8	33		-20 to +60	-55 to +80		
S1336-8BK	③/K					-40 to +100	-55 to +125		

### ■ Electrical and optical characteristics (Typ. T<sub>a</sub>=25 °C, unless otherwise noted)

Type No.	Spectral response range $\lambda$ (nm)	Peak sensitivity wavelength $\lambda_p$ (nm)	Photo sensitivity S (A/W)			Short circuit current I <sub>sc</sub> 100 lx		Dark current I <sub>D</sub> V <sub>R</sub> =10 mV Max. (pA)	Temp. coefficient of I <sub>D</sub> T <sub>CID</sub> (times/°C)	Rise time t <sub>r</sub> V <sub>R</sub> =0 V R <sub>L</sub> =1 kΩ (μs)	Terminal capacitance C <sub>t</sub> V <sub>R</sub> =0 V f=10 kHz (pF)	Shunt resistance R <sub>sh</sub> V <sub>R</sub> =10 mV		NEP (W/Hz <sup>1/2</sup> )											
			$\lambda_p$	200 nm		Min.	Typ.					Min.	Typ.												
				Min.	Typ.										(GΩ)	(GΩ)									
S1336-18BQ	190 to 1100	960	0.5	0.10	0.12	0.33	1	1.2	20	1.15	20	0.5	2	5.7 × 10 <sup>-15</sup>											
S1336-18BK	320 to 1100														-	-									
S1336-5BQ	190 to 1100														0.10	0.12	4	5	30	0.2	65	0.3	1	8.1 × 10 <sup>-15</sup>	
S1336-5BK	320 to 1100														-	-	8	10	50	0.5	150	0.2	0.6	1.0 × 10 <sup>-14</sup>	
S1336-44BQ	190 to 1100														0.10	0.12	22	28	100	1	380	0.1	0.4	1.3 × 10 <sup>-14</sup>	
S1336-44BK	320 to 1100														-	-	-	-	-	-	-	-	-	-	-
S1336-8BQ	190 to 1100														0.10	0.12	-	-	-	-	-	-	-	-	-
S1336-8BK	320 to 1100														-	-	-	-	-	-	-	-	-	-	-

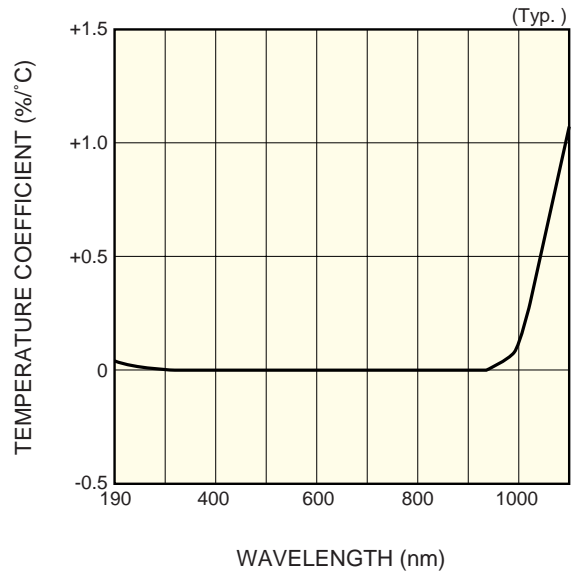
\* Window material, K: borosilicate glass, Q: quartz glass

## ■ Spectral response



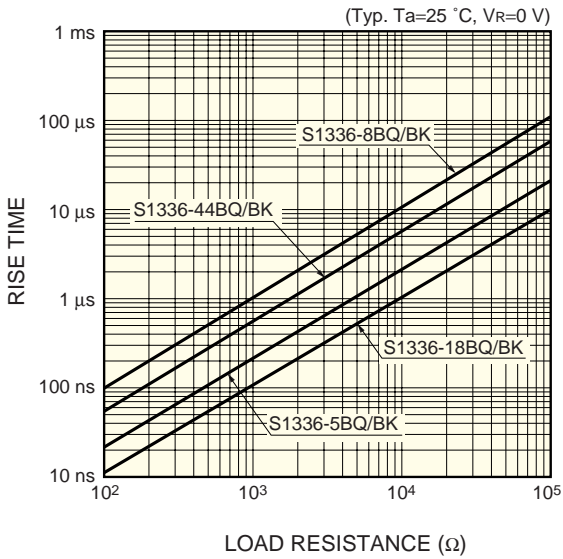
KSPDB0098EA

## ■ Photo sensitivity temperature characteristic



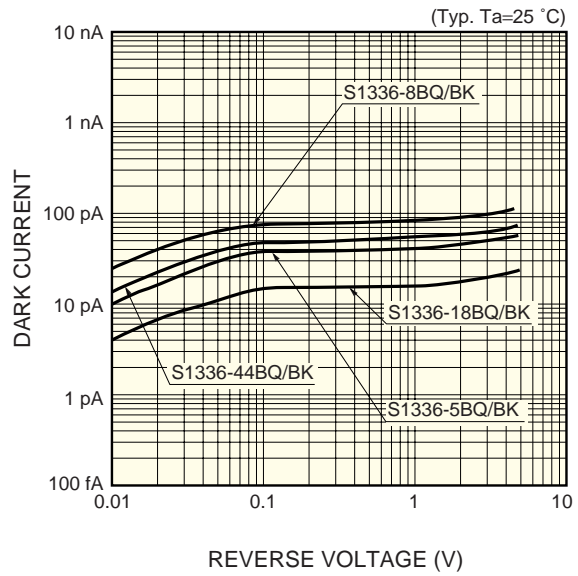
KSPDB0053EB

## ■ Rise time vs. load resistance



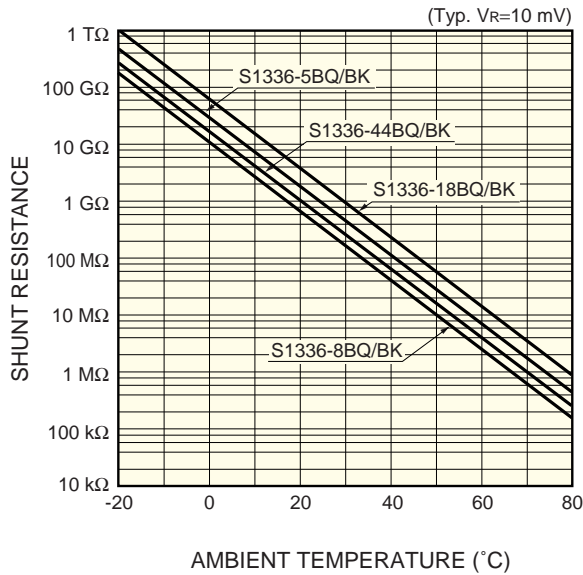
KSPDB0099EA

## ■ Dark current vs. reverse voltage



KSPDB0100EA

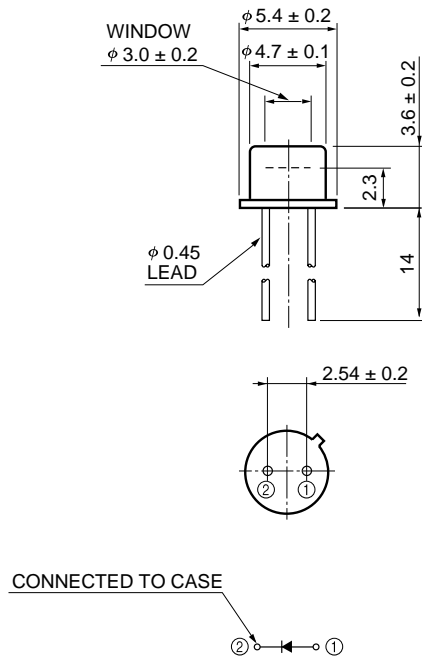
## ■ Shunt resistance vs. ambient temperature



KSPDB0101EA

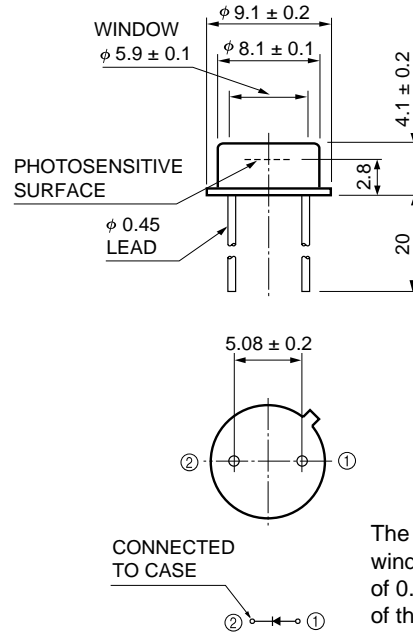
## ■ Dimensional outlines (unit: mm)

### ① S1336-18BQ/-18BK



KSPDA0102EB

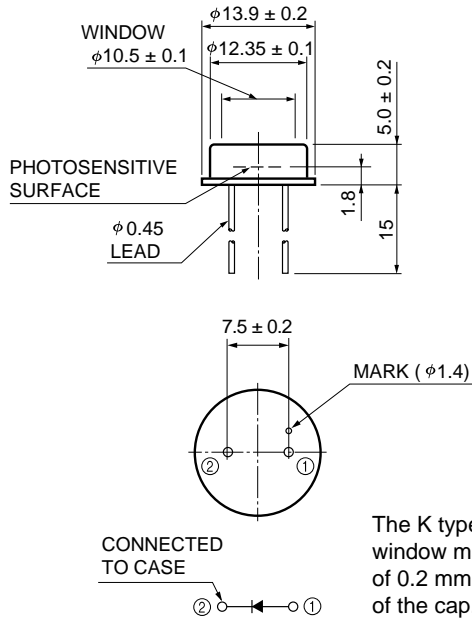
### ② S1336-5BQ/K, S1336-44BQ/K



The K type borosilicate glass window may extend a maximum of 0.2 mm above the upper surface of the cap.

KSPDA0103EA

## ③ S1336-8BQ/-8BK



KSPDA0104EA

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